

Orange and Rockland Utilities, Inc. 390 West Route 59 Spring Valley NY 10977-5300 www.oru.com

April 30, 2013

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Honorable Rosemary Chiavetta Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, P A 17120

APR 3 0 2013

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Re: Electric Service Reliability Regulations
Docket No. L-00030161

Dear Secretary Chiavetta:

In accordance with the Electric Reliability Regulations adopted by the Pennsylvania Public Utility Commission in its order dated May 20, 2004 in Docket No. L-00030161 and a March 17, 2004, letter from James J. McNulty extending the filing date, Pike County Light & Power Company hereby files an original and six copies of its Service Reliability Report for 2012 System Performance.

Any questions regarding this report should be addressed to me at the address listed above or I can be reached at (845) 577-3691.

Very truly yours,

Brian Nugent / Section Manager

Performance & Operations Engineering

Pike County Light and Power (Orange and Rockland Utilities)

Enclosures

cc: Office of Consumer Advocate
Office of Small Business Advocate
Pennsylvania AFL-CIO



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Honorable Rosemary Chiavetta Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Harrisburg, PA 17120

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Pike County Light & Power Company Annual Electric Reliability Report 2012 System Performance

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

INTRODUCTION

Pursuant to the requirements of 52 Pa. Code § 57.195, Pike County Light & Power Company ("Pike" or the "Company") submits this Annual Reliability Report ("Report") to the Pennsylvania Public Utility Commission ("PAPUC") for its 2012 system performance. Pike is an electric distribution company ("EDC") which has approximately 4,500 electric distribution customers, thereby making it a "smaller EDC" for purposes of 52 Pa. Code § 57.195 (c). The Company is a utility subsidiary of Orange and Rockland Utilities, Inc. ("Orange and Rockland"). The Company, together with Orange and Rockland and Rockland Electric Company (i.e., Orange and Rockland's New Jersey utility subsidiary), comprise the Orange and Rockland System.

§ 57.195. (b)(1) An overall assessment of the state of the system reliability in the EDC's service territory including a discussion of the EDC's current programs and procedures for providing reliable electric service.

Overall Current Assessment

Orange and Rockland's "Western Division" includes the Company's service territory, as well as portions of Orange County and Sullivan County in New York State, and portions of Sussex County in New Jersey. Pike County is the south-westernmost portion of the Orange and Rockland System's Western Division. Pike's service territory in Pennsylvania is primarily fed from two 34.5 kV feeders that originate from New York Substations, i.e., Line 5-10 from the Cuddebackville Substation, and Line 7 from the Port Jervis Substation. The eastern portion of the Pike service territory is fed by two 13.2kV feeders from the Matamoras Substation that has ties to distribution circuitry from Orange and Rockland's Port Jervis Substation, in New York, as well. The Matamoras Substation is fed from both Line 5-10 and Line 7, which back each other up through an automatic transfer scheme at the substation. The western portion of the Pike service territory is a radial feed from Line 7.

The PAPUC's service reliability standards for Pike, last revised on August 17, 2006, are as follows:

- 12-Month System Average Interruption Frequency Index ("SAIFI", or "Frequency") of 0.82 interruptions per customer served;
- 12-month Customer Average Interruption Duration Index ("CAIDI" or "Restoration") of 235 minutes of interruption per customer interrupted;
- 12-month System Average Interruption Duration Index ("SAIDI" or "Duration") of 195 minutes per customer served.

In 2012, the Pike service territory experienced a Frequency of 0.57 interruptions per customer served, a Restoration of 185 minutes, and Duration of 104 customer-minutes of interruption. SAIFI was 30% better than the standard, CAIDI was 50 minutes (21%) below the standard, and SAIDI was 91 minutes (47%) below the standard. These results are detailed on Page 5 of this Report, along with the most recent three-year history for these indices.

The three-year reliability standards for Pike are as follows:

Three-year annualized SAIFI of 0.67 interruptions per customer served;

Three-year annualized CAIDI of 192 minutes of interruption per customer interrupted; and

Three-year annualized SAIDI of 129 minutes per customer served.

For the three-year period ending December 2012, Pike experienced an annualized Frequency of 0.65 interruptions per customer served, a Restoration of 245 minutes, and Duration of 159 customer minutes of interruption. The performance measurement for Frequency was better than the three-year standard.

There was one major event affecting Pike's service territory during 2012 that was accepted by the PAPUC for exclusion from the statistics. This major event affected 4,487 customers for a total of 265,208 customer-hours of interruption, and is detailed on Page 4 of this Report. This major event was Superstorm Sandy which occurred on October 29.

The table on Page 6 summarizes, by cause, Pike customer interruptions experienced in 2012, with pre-arranged outages and major events removed. The leading cause of outages is tree contact, with 20 interruptions affecting 892 customers for a total of 232,040 customer-minutes. The service reliability program targeted to manage these outages is the three-year, cycle-based tree clearance program. The most recent cycle was completed in 2012, and is scheduled next for completion in 2015. In addition, a Circuit Ownership Program was in effect in 2012, whereby circuits are patrolled by 'circuit owners' who identify and address circuit issues that will help to improve performance. This effort, along with the other service reliability programs that the Company implements, as are discussed later in this Report, are designed to target circuit equipment and conditions that will result in performance improvements.

The distribution inspection and maintenance goals/objectives and capital expenses, are listed starting on Page 7 of this Report. Pike has no transmission lines.

57.195. (b)(2) A description of each major event that occurred during the year being reported on, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted to avoid or minimize the impact of similar events in the future.

Major Events

Date	Cause	Time	Duration (minutes)	Customers Affected	Cust Min of Interruption
10/29/2012	Superstorm Sandy	14:30	15,618	4,487	15,912,477
Total				4,487	15,912,477

October 29, 2012 Superstorm Sandy

One incident that occurred on October 29, 2012 was submitted for the PAPUC's review as a Major Event. This was a major storm, requiring the activation of the Company's storm center from October 28 through November 10, 2012. As noted above, this was a major hurricane which impacted the Northeast and the Company's service territory in particular. This storm was the worst in the Company's history.

57.195. (b)(3) A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC's service territory for each of the preceding 3 calendar years. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained interruptions, and the number of customers affected, and the minutes of interruption. If MAIFI values are provided, the number of customer momentary interruptions shall also be reported.

Reliability Indices 2010 - 2012

Year	SAIFI	CAIDI	SAIDI	Average Number of Customers Served	Number of Interuptions	Customers Affected	Customer Minutes of Interruptions
2010	0.60	255	153	4,477	63	2,685	685,799
2011	0.73	297	216	4,491	71	3,268	969,660
2012	0.57	185	104	4,494	55	2,542	468,931

MAIFI data is not presently available.

§ 57.195. (b)(4) A breakdown and analysis of outage causes during the year being reported on, including the number and percentage of service outages, the number of customers interrupted, and customer interruption minutes categorized by outage cause such as equipment failure, animal contact, tree related, and so forth. Proposed solutions to identify service problems shall be reported.

Causes Of Interruptions					
	Number of	Percent of	Customers	Customer Min	
Cause	Interruptions	Interruptions	Affected	of Interruption	
Animal	6	10.9%	583	84,289	
Tree	20	36.4%	892	232,040	
Overload	0	0.0%	0	0	
Work Error	0	0.0%	0	0	
Equipment Failure	15	27.3%	314	74,734 .	
Non-Company Acc	4	7.3%	201	44,203	
Customer Problem	0	0.0%	0	0	
Lightning	7	12.7%	531	30,317	
None Found/Other	3	5.5%	21	3,348	
TOTAL	55		2,542	468,931	

As noted in the above table, the primary cause of interruptions in 2012 was from 'tree contacts'. The 2012 Pike distribution vegetation management program included the approximately 57 miles of the L7 and Substation 104 overhead primary system, which is the total of the Pike service territory. This area is scheduled to undergo the three-year distribution cycle again in 2015. During 2012, Pike also assisted municipalities in the removal of hazard trees. In addition to the scheduled distribution VM and hazard tree work performed in 2012, Pike completed major restoration efforts, including removing trees and limbs from the distribution system in response to Superstorm Sandy. Following the restoration response, the Pike vegetation management department complete a thorough post-event patrol focused on finding and remediating vegetation related conditions to improve electrical reliability and safety to our customers. Tree issues are also reported and addressed during the Circuit Ownership circuit patrols.

§57.195(b)(5) A list of the major remedial efforts taken to date and planned for circuits that have been on the worst performing 5% of circuits list for a year or more.

Pursuant to Pike's exemption as set forth in §57.195(c), and as discussed above, Pike is not required to address this subsection.

§ 57.195. (b)(6) A comparison of established transmission and distribution inspection and maintenance goals/objectives versus actual results achieved during the year being reported on. Explanations of any variances shall be included.

T/D Inspection/Maintenance Goals/Objectives

Goals/Objectives vs. Results

For distribution goals and objectives, the Company focused on completing all scheduled preventive maintenance. As set forth below, these goals were met. Pike has no transmission facilities.

• Distribution Vegetation Management

The 2012 Pike distribution vegetation management program included the approximately 57 miles of the L7 and Substation 104 overhead primary system, which is the total of the Pike service territory. This area is scheduled to undergo the three-year distribution cycle again in 2015. During 2012, we also assisted our municipalities in the removal of hazard trees. In addition to the scheduled distribution VM and hazard tree work performed in 2012, Pike completed major restoration efforts, including removing trees and limbs from the distribution system in response to Superstorm Sandy. Following the restoration response, the Pike vegetation management department complete a thorough post-event patrol focused on finding and remediating vegetation related conditions to improve electrical reliability and safety to our customers.

Infrared Inspection Program

The 2012 program included inspecting all three-phase circuitry, and this was completed as planned.

Power Quality

The 2012 maintenance program required inspection of eleven capacitors and five regulators. These Power Quality goals were met.

Mid-point Recloser / Sectionalizing Program

The 2012 maintenance program required inspection of three reclosers and one Scadamate switch. These Mid-point Recloser / Sectionalizing Program goals were met.

Substation Maintenance and Inspection Program.

The 2012 program required completion of all inspection and maintenance requirements as listed in Appendix I for the Matamoras Substation. These Substation Maintenance and Inspection Program goals were met.

§ 57.195. (b)(7) A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

T/D Operation and Maintenance

O&M Accounts	2012 Budget K \$	2012 Actual K \$
580 Operation Supervision And Engineering	\$ 93.6 \$	238.6
581 Load Dispatching	4.8	17.5
582 Station Expenses	61.2	29.9
583 Overhead Line Expenses	10.6	19.7
584 Underground Line Expenses	11.6	0.9
585 Street Lighting	-	-
586 Meter Expenses	12.8	49.7
587 Customer Installation Expenses	-	3.0
588 Miscellaneous Distribution Expenses	4.6	156.5
589 Rents	0.7	0.2
592 Maintenance Station Equipment	10.3	18.2
593 Maintenance of Overhead Lines	61.3	551.7
594 Underground Line Expenses	7.6	7.9
595 Maintenance Line Transf and Dev Distribution	-	-
596 Maintenance of Street Lighting and Signal Syster	5.4	13.1
597 Maintenance of Meters	1.2	1.2
598 Maintenance Miscellaneous Plant	-	2.2
599 Joint use	_120.0	
Total Distribution	\$ 405.7 \$	1,110.3

The 2012 Actual Operation and Maintenance Expenses exceeded the budgeted amounts by 174%.

^{*} Per PAPUC order granting deferral of incremental storm costs for Hurricane Irene (dated June 21, 2012) and Superstorm Sandy (Order Pending), Pike is required to start expensing the deferred amount on a reasonable amortization schedule. The Order does not preclude Pike from seeking recovery of the total amount of deferred expenses.

§ 57.195. (b)(8) A comparison of budgeted versus actual transmission and distribution capital expenditures for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

T/D Capital Expenditures

Account #	Capital Project	2012 Budget K \$	2012 Actual K \$
330	Electric Distribution Blankets - PA	\$ 247.8 \$	645.9
330	L2.PA.Storm #4 Hurricane Sandy Constr/Repl PA	-	70.5
330	Electric Meter 1st Install Bkt - PA	51.2	24.9
330	2012 Distribution Automation Bkt -PA	103.1	5.7
330	2011 Pole Inspection Blanket (PARC)	-	0.4
330	2012 Transformers - O/H PA (Incl Contributions)	36.8	-
330	2012 Circuit Reliability Blanket (PARC)	11.1	_
330	2012 Pole Inspection Blanket (PARC)	42.2	-
330	2012 Transformers - U/G PA (Incl Contributions)	13.6	-
330	Electric Meter Purchases - PA	33.1	
-	Total Capital	\$ 538.9 \$	747.4

The 2012 overall Capital Expenditures were higher than the budget by 39%. This over run was primarily the result of Electric Distribution Blankets. In addition storm replacement costs of \$70,500 were incurred as a result of damage sustained during Superstorm Sandy.

§ 57.195. (b)(9) Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (that is by transmission, substation and distribution.)

T/D Inspection and Maintenance Goals/Objectives Quantified

Inspection and maintenance programs, designed with the intention of improving frequency of interruption and minimizing the resultant increases in restoration (as frequency is improved), have been in effect in Pike's service territory for over ten years. In addition, the "Biennial Inspection, Maintenance, Repair and Replacement Plan" became effective on January 1, 2012. This plan along with the associated programs are focused on field facilities and customer satisfaction, and are effective in minimizing the probability of an interruption while limiting the number of customers affected per interruption. The major programs are:

- Distribution Vegetation Management
 Vegetation management was completed on all Pike distribution circuits in 2012. Spot trimming and hazard tree removal are performed as conditions are identified.
- Infrared Inspection Program
 In 2013, the Infrared Inspection Program will include all three-phase circuitry.
- Power Quality
 The 2013 maintenance program will require inspection of eleven capacitors and five regulators.
- Mid-point Recloser / Sectionalizing Program
 The 2013 maintenance program will require inspection of three reclosers and one Scadamate Switch.
- Substation Maintenance and Inspection Program
 The 2013 maintenance program will require the completion of all monthly and annual inspection and maintenance requirements as listed in Appendix I for the Matamoras Substation.
- Distribution Overhead Line Inspections
 All overhead lines and equipment were inspected by ground patrol and for damage including broken insulators and conductors, equipment leaks and other abnormal conditions. To date we have completed 82% (3,397 of the 4,120 poles) of the pole inspections required by 57.198.n.3.
- Distribution Transformer Inspections
 In 2012, all overhead transformers were inspected during the overhead line inspection program and pad mount transformers will be inspected at least once every five years.

§ 57.195. (b)(10) Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

T/D Operation and Maintenance

O&M Accounts		2013 Budget K \$
580 - OPERATION SUPERVISION AND ENGINEERING	\$	102.7
581 - LOAD DISPATCHING		4.8
582 - STATION EXPENSES		48.2
583 - OVERHEAD LINE EXPENSES]	24.6
584 - UNDERGROUND LINE EXPENSES		12.0
586 - METER EXPENSES		31.2
588 - MISCELLANEOUS DISTRIBUTION EXPENSES		143.6
589 - RENTS		0.7
592 - MAINTENANCE OF STATION EQUIPMENT DISTRIBUTION		12.5
593 - MAINTENANCE OF OVERHEAD LINES DISTRIBUTION		157.8
594 - MAINTENANCE OF UNDERGROUND LINES DISTRIBUTION		54.7
596 - MAINTENANCE OF STREET LIGHTING AND SIGNAL SYSTEMS		20.8
Total Distribution	\$	613.6

§ 57.195. (b)(11) Budgeted transmission and distribution capital expenditures for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

T/D Capital Expenditures

Account #	Capital Project	2013 Budget K \$
330	2013 Transformers - PA OH (Incl Contributions)	\$ 38.1
330	2013 Circuit Reliability Blanket (PARC)	11.1
330	2013 Pole Inspection Blanket (PARC)	40.3
330	US 209-Cummins Hill Rd to Ryan	683.8
330	2013 Transformers - PA UG (Incl Contributions)	14.3
330	2013 Electric Meter Purchases Bkt - PA	25.0
330	2013 Electric Meter 1st Installs Bkt - PA	 40.9
	Total Capital	\$ 853.5

§ 57.195. (b)(12) Significant changes, if any, to the transmission and distribution inspection and maintenance programs previously submitted to the PAPUC.

T/D Inspection and Maintenance Programs Significant Changes

Inspection & Maintenance Changes

There were no significant changes to Pike's Inspection and Maintenance programs in 2012. Inspection programs in 2013 will be performed in accordance with the "Biennial Inspection, Maintenance, Repair and Replacement Plan" filed with the PAPUC.

Appendix I Substation Maintenance and Inspection Program

Item Description:

Examine individual utility substation maintenance programs to validate proper maintenance procedures and verify that maintenance is being performed. Review recent operating data to verify that no adverse trends exist.

Company Program:

The following details the different class inspections and maintenance programs performed by the Substation Operations Department, and their associated time cycles. Intervals vary depending on equipment type, style and maintenance history.

CLASS #1 INSPECTION - Monthly

- Visual inspection of transformers and oil breakers for oil leaks, oil levels, nitrogen pressure, connections, condition of bushings and Oil Circuit Breaker ("OCB") operating mechanism.
- Visual inspection of battery banks, chargers, control board indicating lights, control house lights, yard lights.
- Visual inspection of minor equipment including Potential Transformers ("PTs"), Current Transformers ("CTs"), Capacitive Coupled Potential Devices ("CCPDs"), disconnect switches and bus connections.
- Visual inspection of all structures, fences and yard surfaces.
- Counter readings taken of OCBs, Gas Circuit Breakers ("GCBs"), reclosers and tap changers.

STATION BATTERY TESTS - Annually

Measure specific gravity and cell voltage. Test with Battery Impedance Testing Equipment. Clean batteries.

FANS, PUMPS, HEATERS AND COMPRESSORS - Annually

Check for proper operation prior to winter for heaters and compressors and prior to summer for fans and pumps.

TRANSFORMER GAS-IN-OIL ANALYSIS - Annually

Take oil sample from each power transformer compartment and analyze for combustible gas content.

DOBLE POWER FACTOR TEST - Every Two - Five Years

Use Doble instrument to measure the integrity of the insulating medium of certain device.

OCB TIMING - Every Three - Ten Years

Check the time it takes for each operation of certain breakers.

RELAY MAINTENANCE - Every Four Years, Electromechanical;

Six Years Microprocessor Based, With Self-Check.

Clean, test and calibrate as required all relays involved in protective relay schemes. After testing and calibrating perform a trip test to verify proper operation.

CLASS #3 INSPECTION - Every two - five Years

The Class #3 inspection on transformers is to include, but is not limited to the following items:

- 1. Test oil;
- 2. TTR Test, meggar test;
- 3. Inspect all connectors, bushings;
- 4. Inspect for leaks (oil nitrogen);
- 5. Check CT connections, alarm systems on banks; and
- 6. Doble Power Factor Test.

Transformers With Load Tap Changers

- 7. Test Oil in LTC cabinet: and
- 8. Test LTC control for proper operation.

The Class #3 inspection on OCB's is to include, but is not limited to the following items:

- 1. Test Oil;
- 2. DLRO (Ductor Test) before and after;
- 3. Inspect and clean control cabinet;
- 4. Inspect and clean Pneumatic-Hydraulic or spring charged operating system; and
- 5. Operational Test.

The Class #3 inspection on reclosers is to include, but is not limited to the following items:

- 1. Test Oil;
- 2. DLRO (Ductor Test) before and after;
- 3. Control cabinet clean, checkout and operational test; and

Reclosers With Vacuum Bottles

4. Hi-Pot test.

The Class #3 inspection on ACB's is to include, but is not limited to the following items:

- 1. DLRO (Ductor Test) before and after;
- 2. Inspect all contacts (action to be taken, if needed);
- 3. Inspect and test all Micro and Aux. contacts (close and trip circuit); and
- 4. Operational Testing

CLASS #4 INSPECTION - Various intervals (four - twelve years or as necessitated by Class #3 Inspection results) dependent on equipment type, style and maintenance history.

The Class #4 inspection consists of a thorough inspection and testing of the apparatus listed below.

The Class #4 also includes all inspections included in a Class #3.

Transformers With Load Tap Changer

- 5. Drain oil from LTC cabinet, inspect all contacts;
- 6. Inspect and tighten all connections;
- 7. Clean complete LTC cabinet;
- 8. Filter or replace oil; and
- 9. Test LTC control for proper operation.

The Class #4 inspection on OCB's is to include, but is not limited to the following items:

- 1. DLRO (Ductor test) before and after;
- 2. Drop tanks inspect and tighten all connections. Clean all parts and tanks;
- 3. Test and filter or replace oil;
- 4. Inspect and clean control cabinet;
- 5. Inspect and clean Pneumatic-Hydraulic or spring charged operating systems; and
- 6. Operational Test.

The Class #4 inspection on reclosers is to include, but is not limited to the following items:

- 1. Drop tank (filter or replace oil);
- 2. Inspect all contacts repair or replace (depending on the condition);
- 3. Check and tighten all connections;
- 4. Control cabinet, clean and checkout:
- 5. DLRO (Ductor Test) before and after; and
- 6. Operational Test.

Recloser With Vacuum Bottles

7. Hi-Pot test.

The Class #4 inspection on ACB's is to include, but is not limited to the following items:

- 1. DLRO (Ductor Test) before and after;
- 2. Inspect all contacts clean and put protective grease coating on;
- 3. Inspect and clean all ARC chutes;
- 4. Inspect and test all Micro and Aux. contacts (close and trip circuit);
- 5. Check and tighten all connections; and

6. Operational Test.

References:

All inspection and maintenance records are retained as a hard copy for one year at Orange and Rockland's main Operating Division headquarters. These records are also retained electronically on a work management system. Repeated callouts and equipment failures that show an abnormal trend are flagged by the work management system.

The Doble power factor testing, transformer gas in oil analysis, and infrared inspection records are stored electronically on the Substation Information System ("SIS"). OCB timing maintenance records are presently kept on a separate electronic storage system that is provided with the test equipment.



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